



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

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March 5, 1986

Mr. Roy Benson
U. S. Steel Corporation
P. O. Box 20-B, RFD #1
Santaquin, Utah 84655

Dear Mr. Benson:

RE: Review of MR-1 Submittal, Iron Mountain Mine, PRO/021/008,
Iron County, Utah

Enclosed are the review comments for the Iron Mountain MR-1 received by the Division November 15, 1985. Thank you for accommodating the Division staff site visit on February 7, 1986.

After reviewing the enclosed comments, please advise me if you would like a meeting to discuss any of the items noted. In order to facilitate permitting of this operation, would you please have the response to the comments to the Division by April 18, 1986.

Sincerely,

Lowell P. Braxton
Administrator
Mineral Resource Development
and Reclamation Program

JJW/btb
cc: Technical Review Team
9294R-48

FILE COPY

MR-1 REVIEW

U. S. Steel Corporation
Iron Mountain Mine
PRO/021/008, Iron County, Utah

March 5, 1986

Rule M-3(1)(1) - PGL

The permit area should be delineated on Map No. 1. The disturbed area has been shown and property boundary, but permit area must be shown.

Rule M-3(2)(a) and (b) Past, Current and Future Land Use - KMM and PGL

The applicant should address both livestock and wildlife, particularly deer, use of the area.

The road disposition must be stated. Page 9 of 13 describes "roads not intended for future use will be scarified and seeded." Please show which roads will be reclaimed and/or which ones are not intended for future use.

Rule M-3(2)(d) - PGL

A typical cross section should show how backfilling will be accomplished. More detail is needed than given in the MR-1.

Rule M-3(2)(e) Planting Program - KMM

See M-10 (12) below

Rule M-3(2)(f) Reclamation Timetable - KMM and PGL

Does #26(B) of the MR-1 mean that portions of the low grade pile site will be reclaimed each year? If so, this should be indicated in the reclamation timetable.

A timetable for the accomplishment of each major step in reclamation must be given (i.e., length of time to perform reclamation).

Rule M-5 - PGL

A detailed cost estimate should be submitted for the cost of reclamation. Please explain and verify the cost per acre given in the estimate.

Rule M-10(1) Land Use - KMM

Reclamation plans appear to provide for flat slopes (#23[C][4][b]) and revegetation where the low grade stockpile is being removed. This postmining configuration would be suitable for a postmining land use of either livestock grazing or wildlife habitat. Numbers 21 and 23 also, however, indicate that the refuse pile will be left with 40 degree slopes. Does the applicant intend to revegetate the refuse pile top and slopes? Leaving an unvegetated pile of refuse is not compatible with the probable postmining land use.

The applicant states that the processing will have a positive impact on the site since a large pile will be removed, processed and a smaller refuse pile placed in an adjacent area. This would only be an improvement if the original pile location or the resulting refuse pile can be stabilized and revegetated. The applicant should consider alternatives for refuse disposal and should propose a refuse disposal configuration that is compatible with the postmining land use or request and justify a variance. (See also Rule M-10[12][3].)

Rule M-10(2)(b) - PGL

How will trash and debris at the mine site be disposed? Where?

Rule M-10(2)(d) - PGL

Will appropriate warning signs be posted? Where? What will they say?

Rule M-10(4) - JJW

The MR-1 refers to an attachment 5 cross section map. This was apparently not included with the original package. As the reclaimed cross section of the waste pile is an important aspect of this plan, please submit this cross section.

Rule M-10(5) - PGL

How will the banks be monitored for stability? Please elaborate.

Rule M-10(11) - TM

Sediment control. The applicant must state what sediment control measures will be implemented if erosion becomes a significant problem during the operational or reclamation phase of operation.

Rule M-10(12) Revegetation - KMM

The applicant should review and resubmit the proposed reclamation seed mix including pounds of each species proposed for seeding. The mix should be a "diverse mixture of grasses, shrubs, (and) forbs." The applicant should evaluate and consider species proposed or used in other plantings in the area including U. S. Steel's existing test plots. Indiana rue grass should probably be Indian ricegrass (Oryzopsis hymenoides). The type of brome proposed should be specified since some species would be unacceptable to the Division.

Rule M-10(12)(2) Revegetation Success - KMM

Successful revegetation is determined by comparison to representative surrounding vegetation. At least 70 percent of surrounding area surface cover must be achieved unless the operator demonstrates that the standards cannot be met after all practical land treatments have been attempted. The later could include chisel plowing to reduce compaction and improve water relations in the soil, soil additives for toxicity problems identified during soil sampling, addition of organic matter, mulching and creating a slope configuration conducive to revegetation. See also M-10(4) and (12)(3). The referenced techniques are not required but the applicant should be aware that bond release is unlikely if reclamation is not successful and a serious revegetation effort has not been made. If the applicant has evidence that the proposed refuse pile slope configuration can be successfully revegetated, it should be provided in the Mining and Reclamation Plan.

Pictures provided in the MR-1 should be labelled. Several of the photos show pioneer vegetation suggesting that revegetation may be possible.

(12)(2)(a) Surrounding area vegetation cover levels to be used as the standard for revegetation success must be determined by the applicant. Professionally accepted inventory methods must be used and the results submitted to and approved by the Division. If data are available from other mines in similar vegetation types in the area, those data could be used. The location of the sampling area should be provided on a map.

(12)(2)(b) Methods and scheduling of vegetation monitoring should be proposed.

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70% REVEGE.